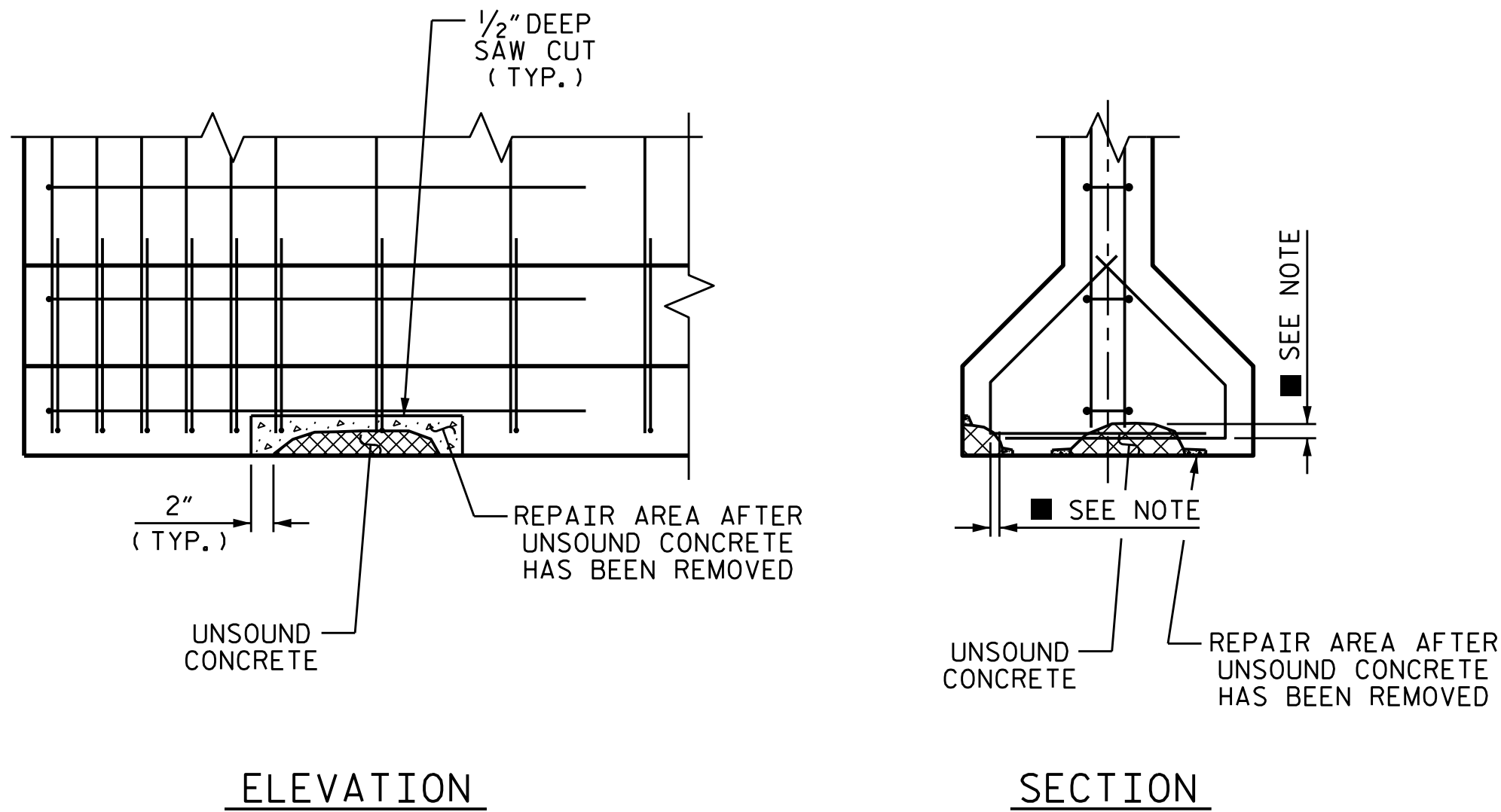


GIRDER WEB REPAIR



GIRDER FLANGE REPAIR

PRESTRESSED GIRDER REPAIR SEQUENCE:

1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A NOMINAL DEPTH OF 1/2".
3. REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM 1/2" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
4. IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
5. ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. USE A WIRE BRUSH TO CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
7. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
8. PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.

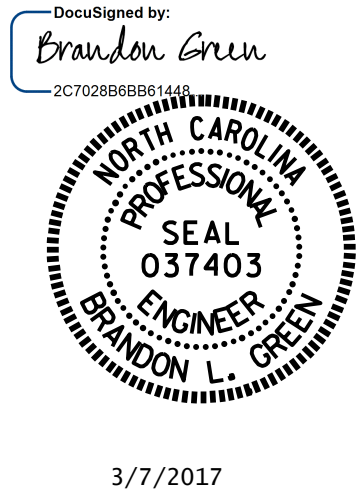
GIRDER REPAIR QUANTITIES						GIRDER POPOUT QUANTITIES				
	QUANTITIES						QUANTITIES			
	ESTIMATE		ACTUAL				ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		NUMBER OF REPAIR LOCATIONS	AREA SF	NUMBER OF REPAIR LOCATIONS	AREA SF
SPAN 1	0.6	0.2				SPAN 1	0	0.0		
SPAN 2	1.2	0.4				SPAN 2	0	0.0		
SPAN 3	34.2	11.4				SPAN 3	65	4.3		
SPAN 4	28.5	9.5				SPAN 4	24	1.5		
SPAN 5	93.6	31.2				SPAN 5	107	9.5		
SPAN 6	121.8	40.6				SPAN 6	89	5.6		
SPAN 10	124.2	41.4				SPAN 10	0	0.0		
SPAN 11	15.9	5.3				SPAN 11	0	0.0		
SPAN 12	104.4	34.8				SPAN 12	0	0.0		
SPAN 13	53.1	17.7				SPAN 13	8	0.5		
SPAN 14	0.0	0.0				SPAN 14	0	0.0		
SPAN 15	0.0	0.0				SPAN 15	0	0.0		
TOTAL	577.5	192.5				TOTAL	285	21.4		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 2" CL TO SAWCUT. SEE REPAIR DETAILS.

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE.

PROJECT NO. B-5942
HYDE COUNTY
BRIDGE NO. 20

SHEET 11 OF 11



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH									
PRESTRESSED GIRDER REPAIR DETAILS AND SUMMARY									
REVISIONS									SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:				
1			3						
2			4						
									TOTAL SHEETS
									30

DRAWN BY : B. L. GREEN DATE : 10-16
CHECKED BY : P. C. BREWER DATE : 10-16

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED